UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,357	06/14/2000	Ralf Haferbeck	P00,1277	3957

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BELL, BOYD & LLOYD, LLP
P.O. BOX 1135
CHICAGO, IL 60690

EXAMINER
TSEGAYE, SABA

ART UNIT	PAPER NUMBER
2619	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
09/826,357</td><td>Applicant(s)
HAFERBECK ET AL.</td></tr>
<tr><td>Examiner
Saba Tsegaye</td><td>Art Unit
2619</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 09/10/07 has been entered.

2.   Claims 1-5 are pending. Currently no claims are in condition for allowance.

Claim Rejections - 35 USC § 103

3.   Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dempo

(6,594,267), hereafter referred to as Dempo in view of Okabe et al. (US 6,031,838), hereafter

referred to as Okabe.

Referring to claims 1 and 5, Dempo discloses ATM switching equipment (a variable

length packet interchange, hereafter referred to as the "interchange" (see item 1 figure 1))

comprising a switching network (the interchange comprises a network (see figure 4)) an input

interface unit including an input processing unit (the interchange comprises a plurality of

interfaces (see item 10 in figure 4)), an output interface unit including an output processing unit

(the interchange comprises output interfaces (see item 27 in Figure 4)), a microprocessor (the

interchange has an associated CPU (see item 4 in figure 1)), a server switching unit (the

interchange comprises a selector (see item 11 in figure 4)) comprising an AAL2 switcher that is

connected to the switching network via a first interface (the selector has a selector section

connected to the rest of the interchange (note, the entire system in Dempo involves processing

AAL2 cells) (see item 11a in figure 6)), an input processing unit to which said AAL2 switcher is

connected (the selector has a buffer control section (see items BCl-BC8 in figure 6)), and an

output processing unit to which said AAL2 switcher is connected (a CPS-PDU transmission

section (see item 11b in figure 6)), said switching equipment being configured to write a new

VPI/VCI information for a further connecting section into cells of arriving data streams upon

utilization of routing tables (the interchange performs header conversion of the VCI and VPI

values using a routing table (see item 22 in figure 4, items 4 and 5 in figure 1, figure 5 and

column 1 lines 45-67)), said AAL2 switcher being configured for simultaneous processing of a

maximum plurality of incoming connections (the selector section has a plurality of inputs that

make up a plurality of connections thus it is performing simultaneous processing of those

connections (see figure 6)), an AAL2 routing list being provided for each of said incoming

connections (there is a routing list associated for each incoming ATM connection depending on

the associated VPI and VCI of the connections (see item 22 in figure 4, items 4 and 5 in figure 1,

figure 5 and column 1 lines 45-67)) and said microprocessor being configured to limit an

allowable value range for VPI/VCI values in a header of ATM cells according to a plurality of

said AAL2 routing lists, so that said first interface considers corresponding VPV/VCI coding bits

(inherently, the number of bits that represent the VPI and VCI values is limited to a certain

number as described by the ATM standard used by Dempo, therefore there is only a range of

values that the VPI and VCI can possible be (see figure 5).

Dempo does not expressly disclose a microprocessor that limits the number of bits

representing VPI/VCI bits from among VPI/VCI bits transmitted in a header of ATM cells to be

interpreted according to a number of ATM connection available for processing.

Okabe teaches an ATM switching system connected to a switching network without

requiring recognition of all VPI/VCI bits. As shown in Fig. 1, a first address converter 22 for

converting a VPI/VCI included in the header of a cell to a cell address having a number of bits

smaller than the number of bits of the VPI/VCI value. Further, Okabe teaches that the ATM

switching system is capable of controlling the management of various data as well as the

switching of cells based upon cell addresses (column 6, lines 16-41; column 17, lines 33-44).

It would have been obvious to one of ordinary skill in art at the time the invention was

made to modify Dempo's apparatus to utilize a system where the CPU also has the capability to

limit the number of bits representing VPI/VCI bits, as taught by Okabe. The motivation is more

integrated and efficient system that will reduce the amount of hardware for various tables and

processing circuits, thereby reducing cost.

Referring to claim 3, Dempo discloses the system discussed above. Furthermore, Dempo

discloses a single virtual path is established between said switching network and said server

switching unit (the selector is part of the interchange network as shown in figure 4 and since

multiple paths through the network exist a single path also exists (i.e. there are numerous single

virtual paths between the selector and switching network in Dempo).

Referring to claim 4, Dempo discloses the system discussed above. Furthermore, Dempo

discloses buffer memories, which are allocated to said routing lists (a beer storing a table is

allocated to routing header information (see item 5 in figure 1 and figure 2 and 5)), a section of

an ALL2 packet of an A'T'M cell being writeable into said buffer memories (the table in

dynamic and thus it can be updated according to the VCI and VPI values of the incoming ATM

headers (see item 5 in figure 1 and figure 2 and 5)), and said section being readable from said

buffer memories when processing a next-successive ATM cell (the processing done using the

routing table is continuous therefore the next incoming cell will also be processed by reading the

table and writing the corresponds header values (see item 5 in figure 1 and figure 2 and 5)) and

for completion of a remainder of said 4.à1,2 packet (inherently, the current cell being processed

will be completed with its associated header so that it can be forwarded on to the destination (see

item 5 in figure 1 and figure 2 and 5).

Referring to claim 2, Dempo in view of Okabe discloses the system discussed above.

Dempo in view of Okabe does not disclose that the first interface is a UTOPIA interface.

However, the present application points out on page 5 lines 1 5-17 that UTOPIA is a standardized

protocol that is well proven for connecting AAL2 switchers to switching networks. For these

reasons it would have been obvious to one skilled in the art at the time of the invention to

implement this feature in the system of Dempo in view of Okabe.

Response to Arguments

4.   Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection. Applicant admitted that Okabe discloses limiting the number of bits representing VPI/VCI bits. However, Applicant argues (Remarks, page 4) that Okabe fails to disclose, "limiting of bits representing VPI/VCI bits is performed *according to a number of A TM connections available for processing as indicated in the AAL2routing lists."* Examiner respectfully submitted that the rejection is based on the combined teaching of the Dempo patent and Okabe patent, and that the Dempo patent, as pointed out above (in the Office Action) does teaches this feature. Examiner believes that the claims, given their broad reasonable interpretation, read on the references applied.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Saba Tsegaye
Examiner
Art Unit 2619

ST
November 6, 2007

11/9/07

WING CHAN
SUPERVISORY PATENT EXAMINER